Amendments to the Claims:

1. (Currently Amended) A plug for implantation into an endodontically prepared root canal of a tooth, comprising:

an elongated body comprised of a biologically compatible, resilient material having a distal end and a proximal end and having a length to allow the distal end to be positioned adjacent to an apical portion of the tooth when the body is inserted in the root canal of the tooth, the body being further suitably provided in more than one predetermined configuration to permit the body ~~proportioned~~ to substantially abut the walls of the root canal of the tooth and extend to the apical portion of the root canal when implanted, the plug being further comprised of a material that is optically transmissive and fully polymerized prior to insertion into the root canal of the tooth.

2. (Original) The plug according to claim 1 wherein the optically transmissive material further comprises an optically transparent material.

3. (Original) The plug according to claim 1 wherein the optically transmissive material further comprises an optically translucent material.

4. (Original) The plug according to claim 1 wherein the elongated body further comprises an elongated body that tapers from the proximal end to the distal end.

5. (Original) The plug according to claim 1 wherein the material further comprises a material selected from the group consisting of silicones, polyethylenes, polyurethanes, polytetraflouroethylenes, polymethylmethacrylates (PMMA) and polytetraflourethyenes (PTFE).

6. (Original) The plug according to claim 1 wherein the material is further comprised of a radio-opacifier.

7. (Original) The plug according to claim 6 wherein the radio-opacifier is comprised of a barium compound.

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8. (Original) The plug according to claim 6 wherein the radio-opacifier is comprised of a bismuth compound.

9. (Original) The plug according to claim 1 wherein the material is further comprised of a phosphorescent compound.

10. (Original) The plug according to claim 9 wherein the phosphorescent compound further comprises anhydrous zinc sulfide.

11. (Original) The plug according to claim 9 wherein the phosphorescent compound further comprises calcium tungstate.

12. (Original) The plug according to claim 1 wherein the material is further comprised of one component of a two component bonding system.

13. (Original) The plug according to claim 1 wherein the material is further comprised of a radioisotope having a relatively short half-life.

14. (Currently Amended) A carrier for root canal obturation in an endodontically prepared tooth, comprising:

an elongated plug portion comprised of a biologically implantable, resilient material having a distal end and a proximal end and having a length to allow the distal end to be positioned adjacent to an apical portion of the tooth when the plug portion is implanted in the root canal of the tooth, the distal end extending to the apical portion and substantially abutting the walls of the root canal when the plug is implanted, the plug portion being further configured in a plurality of predetermined and standardized shapes that are adapted conform to the contours of the root canal, and comprised of a material that is optically transmissive and fully polymerized prior to insertion into the root canal of the tooth; and

an elongated support portion having a first end coupled to the proximal end of the plug portion and an opposing second end.

15. (Original) The carrier according to claim 14 wherein the elongated plug portion is further comprised of an optically transparent material.

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16. (Original) The carrier according to claim 14 wherein the elongated plug portion is further comprised of an optically translucent material.

17. (Original) The carrier according to claim 14 wherein the elongated plug portion further comprises an elongated plug portion that tapers from the proximal end to the distal end.

18. (Original) The carrier according to claim 14 wherein the elongated plug portion further comprises a radio-opacifier.

19. (Original) The carrier according to claim 14 wherein the elongated plug portion further comprises a phosphorescent compound.

20. (Original) The carrier according to claim 14 wherein the elongated plug portion further comprises one component of a two component bonding system.

21. (Original) The carrier according to claim 14 wherein the elongated plug portion further comprises a radioisotope having a relatively short half-life.

22. (Original) The carrier according to claim 14 wherein the support portion further includes a handle positioned adjacent to the second end.

23. (Original) The carrier of claim 14, further comprising:

an optical fiber embedded in the plug portion that extends at least a partially along the length of the plug portion, the fiber further extending outwardly from the proximal end of the plug portion.

24. (Original) The carrier according to claim 23 wherein the support portion further includes an interior passage that extends from the first end to the second end, and the optical fiber extends along the interior passage.

25. (Currently Amended) A method for obturating a root canal passage in a tooth, comprising:

applying a light-curing adhesive to the root canal passage;

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implanting an optically transmissive plug into the root canal passage, the plug being in a fully polymerized condition prior to implanting the plug into the root canal passage, the plug being provided in more than one predetermined standardized configuration to permit the body to abut~~ting~~ internal surfaces of the root canal passage and extend~~ing~~ to an apical portion of the root canal when implanted; and

exposing a portion of the plug to a light source to cure the adhesive.

26. (Previously Presented) The method according to claim 25 wherein implanting an optically transmissive plug into the root canal passage further comprises heating the plug to soften an exterior surface layer of the plug.

27. (Original) The method according to claim 25 wherein applying a light-curing adhesive to the root canal passage further comprises applying a light-curing adhesive having a viscosity in the range of at least about 0.5 cP to at least about 1.5 cP.

28. (Original) The method according to claim 25 wherein exposing a portion of the plug to a light source further comprises exposing a portion of the plug to a source of light at a selected wavelength.

29. (Original) The method according to claim 25 wherein exposing a portion of the plug to a source of light is further comprised of exposing a portion of the plug to light through an optical fiber that is optically coupled to the light source.

30. (Previously Presented) The method according to claim 25 wherein implanting an optically transmissive plug into the root canal passage further comprises:

manipulating a carrier having an optically transmissive plug portion positioned on a support portion to place the plug portion in proximity to the root canal passage that extends to at least an apical portion of the root canal passage; and

inserting the plug portion into the root canal passage.

31. (Original) The method according to claim 30, further comprising severing the support portion from the plug portion.

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32. (Currently Amended) A method for obturating a root canal passage in a tooth, comprising:

applying an adhesive to the root canal passage;

inserting an optically transmissive plug into the root canal passage, the plug being in a fully polymerized condition prior to inserting the plug into the root canal passage and extending to an apical portion of the root canal, the plug abutting internal surfaces of the root canal passage, the plug further being provided in more than one predetermined standardized configuration to permit the body to conform to a contour formed within the root canal passage by a corresponding endodontic rotary instrument; and

curing the adhesive.

33. (Original) The method according to claim 32 wherein inserting an optically transmissive plug into the root canal passage further comprises exposing an optically transmissive plug comprised of a phosphorescent material to a source of light to induce photoluminescence; and curing the adhesive further comprises exposing the adhesive to the photoluminescence to cure the adhesive.

34. (Original) The method according to claim 32 wherein applying an adhesive to the root canal passage is further comprised of applying a first component of a two-part bonding system to the root canal passage; and inserting an optically transmissive plug into the root canal passage further comprises inserting a plug into the root canal passage that is formed from a second component of a two-part bonding system.

35. (Original) The method according to claim 32 wherein applying an adhesive to the root canal passage further comprises applying a light-curing adhesive to the root canal passage.

36. (Original) The method according to claim 35 wherein applying a light-curing adhesive further comprises applying a light-curing adhesive having a viscosity in the range of at least about 0.5 cP to at least about 1.5 cP.

37. (Original) A method for obturating a root canal passage in a tooth, comprising:

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fusing an optically transmissive material to form a semi-liquid mass of the material;

applying a light-curing adhesive to the root canal passage;

injecting the semi-liquid mass into the root canal passage to form an obturating body within the root canal; and

exposing a portion of the obturating body to a light source to cure the adhesive.

38. (Original) The method according to claim 37 wherein applying a light-curing adhesive to the root canal passage further comprises applying a light-curing adhesive having a viscosity in the range of at least about 0.5 cP to at least about 1.5 cP.

39. (Original) The method according to claim 37 wherein exposing a portion of the obturating body to a light source further comprises exposing a portion of the body to a source of light at a selected wavelength.

40. (Original) The method according to claim 39 wherein exposing a portion of the obturating body to a source of light is further comprised of exposing a portion of the body to light through an optical fiber that is optically coupled to the light source.

41. (Original) The method according to claim 37 wherein fusing an optically transmissive material includes fusing an optically transmissive material in a "gutta percha gun."

42. (Currently Amended) An apparatus for endodontically treating a tooth, comprising:

an adhesive compound that includes a selected photocatalyst operable to promote polymerization of the compound upon exposure to light having a specified wavelength; and

a tapered plug configured to be implanted in a root canal of the tooth that is uniformly comprised of a flexible, resilient and optically transmissible polymeric material, the tapered plug corresponding to a taper formed in the root canal by a selected endodontic rotary instrument to permit the plug ~~and further configured~~ to occupy substantially an entire volume of the root canal when implanted ~~and having~~ so that a distal end of the plug ~~that~~ extends at least

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proximate to an apical foramen of the root canal, the adhesive compound adapted to be ~~being~~ interposed between the plug and an interior portion of the root canal to sealably secure the plug to the interior portion of the canal upon exposure to the light.

43. (Original) The apparatus of claim 42, wherein the optically transmissible material further comprises an optically transparent material.

44. (Original) The apparatus of claim 42, wherein the optically transmissible material further comprises an optically translucent material.

45. (Original) The apparatus of claim 42, wherein the adhesive compound further comprises a liquid having a viscosity of at least about 0.5 cP.

46. (Original) The apparatus of claim 42, wherein the adhesive compound includes a dual cure system.

47. (Original) The apparatus of claim 42, wherein the flexible and resilient material further comprises a material selected from a silicone, a polyethylene, a polyurethane, a polytetraflouroethylene, a polymethylmethacrylate (PMMA) and a polytetraflourethyene (PTFE).

48. (Original) The apparatus of claim 42, wherein the flexible and resilient material further comprises a radio-opacifier.

49. (Original) The apparatus of claim 42, wherein the flexible and resilient material further comprises a phosphorescent compound.

50. (Currently Amended) An apparatus for endodontically treating a tooth, comprising:

an adhesive compound that includes a selected photocatalyst operable to promote polymerization of the compound upon exposure to light having a specified wavelength;

a tapered plug configured to be implanted in a root canal of the tooth that is uniformly comprised of a flexible, resilient and optically transmissible polymeric material, the

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tapered plug corresponding to a taper formed in the root canal by a selected endodontic rotary instrument to permit the plug ~~and further configured~~ to occupy substantially an entire volume of the root canal when implanted, the plug having a distal end that extends at least proximate to an apical foramen of the root canal and an opposing proximal end, the adhesive compound adapted to be ~~being~~ interposed between the plug and an interior portion of the root canal to sealably secure the plug to the interior portion of the canal upon exposure to the light; and

an elongated support coupled to the plug and extending at least partially into the plug through the opposing proximal end.

51. (Original) The apparatus of claim 50, wherein the optically transmissible material further comprises an optically transparent material.

52. (Original) The apparatus of claim 50, wherein the optically transmissible material further comprises an optically translucent material.

53. (Original) The apparatus of claim 50, wherein the adhesive compound further comprises a liquid having a viscosity of at least about 0.5 cP.

54. (Original) The apparatus of claim 50, wherein the adhesive compound includes a dual cure system.

55. (Original) The apparatus of claim 50, wherein the flexible and resilient material further comprises a material selected from a silicone, a polyethylene, a polyurethane, a polytetraflouroethylene, a polymethylmethacrylate (PMMA) and a polytetraflourethyene (PTFE).

56. (Original) The apparatus of claim 50, wherein the flexible and resilient material further comprises a radio-opacifier.

57. (Original) The apparatus of claim 50, wherein the elongated support further comprises an optical fiber that extends at least partially along a length of the plug and further extends outwardly from the proximal end.

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58. (Original) The apparatus of claim 57, wherein the elongated support further comprises an interior passage, and the optical fiber extends along the interior passage.

59. (Original) The apparatus of claim 57, wherein the optical fiber is coupleable to a source of optical radiation.

60. (Original) The apparatus of claim 50, wherein the elongated support further comprises a handle coupled to the support.

61. (Withdrawn) A plug for implantation into an endodontically prepared root canal of a tooth, comprising:

an elongated body comprised of a biologically compatible, resilient material that is one component of a two component bonding system, the body having a distal end and a proximal end and a length to allow the distal end to be positioned adjacent to an apical portion of the tooth when the body is inserted in the root canal of the tooth.

62. (Withdrawn) The plug of claim 61, wherein the body comprises a catalyst portion of the two component bonding system.

63. (Withdrawn) The plug of claim 61, wherein the body comprises a resin portion of the two component bonding system.

64. (Withdrawn) The plug of claim 61, wherein the body comprises an activator portion of the two component bonding system.

65. (Withdrawn) The plug of claim 61, wherein at least one component of the two component bonding system includes a photocatalyst.

66. (Withdrawn) A carrier for root canal obturation in an endodontically prepared tooth, comprising:

an elongated plug portion comprised of a biologically implantable, resilient material that is one component of a two component bonding system, the plug having a distal end

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and a proximal end and a length to allow the distal end to be positioned adjacent to an apical portion of the tooth when the plug portion is implanted in the root canal of the tooth; and

an elongated support portion having a first end coupled to the proximal end of the plug portion and an opposing second end.

67. (Withdrawn) The carrier of claim 66, wherein the plug portion comprises a catalyst portion of the two component bonding system.

68. (Withdrawn) The carrier of claim 66, wherein the plug portion comprises a resin portion of the two component bonding system.

69. (Withdrawn) The carrier of claim 66, wherein the plug portion comprises an activator portion of the two component bonding system.

70. (Withdrawn) The carrier of claim 66, wherein at least one component of the two component bonding system includes a photocatalyst.

71. (Withdrawn) A plug configured to be adhesively implanted into an endodontically prepared root canal of a tooth, comprising:

an elongated body comprised of a biologically compatible, resilient material of uniform composition having a distal end and a proximal end and having a length to allow the distal end to be positioned adjacent to an apical portion of the tooth when the body is inserted in the root canal of the tooth, the body occupying substantially an entire volume of the root canal when implanted; and

an adhesive compound interposed between the elongated body and an inner surface of the root canal that bonds the body to the inner surface of the root canal.

72. (Original) The plug of claim 71, wherein the elongated body is further comprised of an optically transmissible material.

73. (Original) The plug of claim 72, wherein the optically transmissible material comprises an optically transparent material.

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74. (Original) The plug of claim 72, wherein the optically transmissible material comprises an optically translucent material.

75. (Withdrawn) The plug of claim 71, wherein the adhesive compound further comprises a dual cure adhesive having a first curing rate when the adhesive is exposed to illumination, and a second curing rate when the adhesive is not exposed to illumination.

76. (Withdrawn) The plug of claim 71, wherein the adhesive compound further comprises a two part bonding system.

77. (Withdrawn) A carrier configured for adhesively obturating an endodontically prepared root canal of a tooth, comprising:

an elongated body comprised of a biologically compatible, resilient material of uniform composition having a distal end and a proximal end and having a length to allow the distal end to be positioned adjacent to an apical portion of the tooth when the body is inserted in the root canal of the tooth, the body occupying substantially an entire volume of the root canal when implanted;

an elongated support portion having a first end coupled to the proximal end of the plug portion and an opposing second end; and

an adhesive compound interposed between the elongated body and an inner surface of the root canal that bonds the body to the inner surface of the root canal.

78. (Original) The carrier of claim 77, wherein the elongated body is further comprised of an optically transmissible material.

79. (Original) The carrier of claim 78, wherein the optically transmissible material comprises an optically transparent material.

80. (Original) The carrier of claim 78, wherein the optically transmissible material comprises an optically translucent material.

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81. (Withdrawn) The carrier of claim 77, wherein the adhesive compound further comprises a dual cure adhesive having a first curing rate when the adhesive is exposed to illumination, and a second curing rate when the adhesive is not exposed to illumination.

82. (Withdrawn) The carrier of claim 77, wherein the adhesive compound further comprises a two part bonding system.

83. (Withdrawn) The plug of claim 71, wherein the elongated body further comprises a body configured to correspond to a standardized size.

84. (Original) The method of claim 25, wherein implanting an optically transmissive plug into the root canal passage further comprises chemically softening the plug.

85. (Original) The method of claim 25, wherein implanting an optically transmissive plug into the root canal passage further comprises mechanically deforming the plug.

86. (Withdrawn) The plug of claim 61, wherein the body is a component that catalyzes the bonding of a dual cure bonding compound.

87. (Withdrawn) The plug of claim 71, wherein the elongated body is further comprised of a plurality of obturating bodies that cooperatively occupy the entire volume of the root canal.

88. (Withdrawn) The plug of claim 71, wherein the elongated body is configured to conform to at least one pre-selected size that corresponds to a size of an endodontic instrument.

89. (Withdrawn) The plug of claim 88, wherein the elongated body is configured to conform to a pre-selected feather tip size.

90. (Withdrawn) The plug of claim 71, wherein the elongated body is configured to conform to a predetermined dimension of an endodontic instrument.

91. (Withdrawn) The plug of claim 90, wherein the elongated body conforms to at least one of a length, a width and a degree of taper of the endodontic instrument.

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